

INTERNATIONAL SEARCH REPORT

Int. application No
PCT/EP 03/04499

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01V1/38

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01V

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 84 03153 A (KONGSBERG VAPENFAB AS) 16 August 1984 (1984-08-16) page 2, paragraph 5 page 3, paragraphs 3,4 page 6, paragraph 4 page 7, paragraphs 2,4 page 8, paragraphs 1-3 page 9, paragraph 5 figures 1,2	1-30, 35-38
Y		31-34, 39-42
X	GB 2 089 043 A (CHEVRON RES) 16 June 1982 (1982-06-16) page 1, line 73 - line 98 page 2, line 11 - line 62 claim 1; figure 1	1-30

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

28 January 2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	COURT I.N.: "Applications of accoustics to source-array and streamer tow-point positioning" GEOPHYSICS, SOCIETY OF EXPLORATION GEOPHYSICISTS, vol. 56, no. 4, 1 April 1991 (1991-04-01), pages 558-564, XP002268338 page 559, right-hand column; figure 1 page 561	31-34, 39-42
X	US 4 187 492 A (DEIGNIERES ROBERT) 5 February 1980 (1980-02-05) column 2, line 19 column 2, line 50 - line 59 column 3, line 24 - line 28 claim 1; figure 1	1,19
X	US 4 376 301 A (ROBERTS F ALEX) 8 March 1983 (1983-03-08) column 2, line 59 -column 3, line 30 figure 1	1,19
A	US 4 641 287 A (NEELEY WALTER P) 3 February 1987 (1987-02-03) column 1, line 59 -column 2, line 62 column 3, line 20 - line 25 figure 1	39-42
A	FR 2 620 536 A (GEOPHYSIQUE CIE GLE) 17 March 1989 (1989-03-17) page 5, line 29 -page 7, line 3 page 7, line 23 - line 29 figures 1A,1B	1-42
A	US 4 669 067 A (ROBERTS F ALEX) 26 May 1987 (1987-05-26) column 2, line 65 -column 3, line 36 column 4, line 15 -column 5, line 23	1-42

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Int Application No
PCT 03/04499

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 8403153	A	16-08-1984	NO 830358 A AU 2438584 A BR 8405066 A EP 0134804 A1 JP 60500383 T WO 8403153 A1	03-08-1984 30-08-1984 26-12-1984 27-03-1985 22-03-1985 16-08-1984
GB 2089043	A	16-06-1982	AU 545131 B2 AU 7841581 A BR 8107971 A CA 1195762 A1 DE 3149162 A1 DK 545781 A ,B, ES 8301032 A1 FR 2495783 A1 IT 1139931 B JP 57141571 A NL 8105493 A NO 814197 A ,B, NZ 199066 A US 4555779 A YU 289381 A1 ZA 8108225 A	04-07-1985 23-09-1982 14-09-1982 22-10-1985 12-08-1982 11-06-1982 01-02-1983 11-06-1982 24-09-1986 01-09-1982 01-07-1982 11-06-1982 30-08-1985 26-11-1985 31-12-1983 27-10-1982
US 4187492	A	05-02-1980	FR 2393320 A1 BE 860770 A1 CA 1106487 A1 DE 2751616 A1 GB 1571138 A IT 1087233 B JP 1396098 C JP 53064548 A JP 62000471 B NL 7712636 A ,C NO 773931 A ,B, NO 147618 A	29-12-1978 16-05-1978 04-08-1981 24-05-1978 09-07-1980 04-06-1985 24-08-1987 09-06-1978 08-01-1987 22-05-1978 19-05-1978
US 4376301	A	08-03-1983	AU 546727 B2 AU 7841681 A BR 8107972 A CA 1172346 A1 DE 3149163 A1 DK 545481 A ,B, ES 8301368 A1 FR 2495784 A1 GB 2089042 A ,B IT 1139932 B JP 1609714 C JP 2035954 B JP 57160077 A NL 8105494 A NO 814198 A ,B, NZ 199067 A YU 192283 A1 YU 289281 A1 ZA 8108226 A	19-09-1985 23-09-1982 14-09-1982 07-08-1984 05-08-1982 11-06-1982 16-02-1983 11-06-1982 16-06-1982 24-09-1986 15-07-1991 14-08-1990 02-10-1982 01-07-1982 11-06-1982 06-07-1984 28-02-1989 31-12-1983 27-10-1982
US 4641287	A	03-02-1987	AU 580291 B2	12-01-1989

INTERNATIONAL SEARCH REPORT

Int. Application No
PCT/03/04499

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4641287 A		AU 4086585 A CA 1240782 A1	07-11-1985 16-08-1988
FR 2620536 A	17-03-1989	FR 2620536 A1	17-03-1989
US 4669067 A	26-05-1987	NONE	